

Application No. 10/597,497

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Reply to the Office Action dated June 17, 2008

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**AMENDMENTS TO THE DRAWINGS:**

The attached sheets of Drawings include changes to Figs. 1-3. These sheets, which include Figs. 1-3, replace the original sheets including Figs. 1-3.

Attachment: Three Replacement Sheets.

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**REMARKS/ARGUMENTS**

Claims 4-7 are pending in this application. By this Amendment, Applicant AMENDS the drawings.

On page 2 of the outstanding Office Action, the Examiner acknowledged the claim for priority papers under 35 U.S.C. §§ 119(a)-(d). However, the Examiner alleged that the priority papers have not been filed, even though the Notice of Acceptance dated August 13, 2007 indicates that the priority papers have been received. Applicant has concurrently filed Form PTO/SB/38 to request that the U.S. Patent Office electronically retrieve the priority papers. Accordingly, Applicant respectfully requests that the receipt of the priority papers be acknowledged in the next Office Action.

On page 2 of the outstanding Office Action, the Examiner acknowledged that the replacement sheets for **Figs. 4-6** submitted on July 27, 2006 are acceptable. However, the Examiner has required that new **Figs. 1-3** be submitted because of allegedly unacceptable line quality in these figures. Applicant has submitted replacement sheets for **Figs. 1-3** in this Amendment.

On page 3 of the outstanding Office Action, the Examiner rejected Claims 4-7 under 35 U.S.C. §103(a) as being unpatentable and obvious over Applicant's Admitted Prior Art **Fig. 4** (AAPA) in view of Fuse (JP 2003-111481). The Examiner used the first name of Hiroshi instead of the family name of Fuse. Applicant has used the family name Fuse to refer to this reference in this Amendment.

Applicant respectfully traverses the rejection of Claims 4-7.

Applicant's Claim 4 recites:

A motor drive control circuit comprising:  
a rotation control amplifier arranged to input a peak voltage of a voltage generated in an impedance element to detect a drive current of a motor, a voltage limiting reference voltage, and a rotation speed control voltage arranged to control a rotation speed of the motor and compare the lower of the voltage limiting reference voltage and rotation speed control voltage with the peak voltage;

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**a rotation limiting comparator arranged to input and compare a voltage that is substantially equal to said voltage limiting reference voltage with said peak voltage;**

a synthesis circuit arranged to amplify a rotation position detection signal of the motor according to an output voltage of the rotation control amplifier;

a PWM output comparator arranged to compare an output of the synthesis circuit with a triangular wave voltage of a triangular wave generator and outputs a PWM signal; and

a motor-driver control circuit arranged to input the PWM signal and an output signal of the rotation limiting comparator, remove an output period of the rotation limiting comparator from an ON period of the PWM signal, and control a motor driver that drives the motor. (emphasis added)

In the paragraph bridging pages 3-5 of the outstanding Office Action, the Examiner alleged that the combination of AAPA and Fuse teaches the features recited in Applicant's Claim 4. The Examiner admitted that AAPA fails to teach or suggest the feature of "a rotation limiting comparator arranged to input and compare a voltage that is substantially equal to said voltage limiting reference voltage with said peak voltage" as recited in Claim 4. The Examiner alleged that reference number **21** shown in **Fig. 7** of Fuse teaches this feature. The Examiner alleged it would have been obvious to modify AAPA to have reference number **21** of Fuse "to remove the delay cause by the oscillation capacitor when an abnormality occurs."

Applicant respectfully disagrees.

First, the Examiner has clearly failed to provide a proper motivation for combining AAPA and Fuse because the Examiner has impermissibly relied upon the description of Applicant's present claimed invention as a guide and a template. The Examiner's alleged advantage of reference number **21** of Fuse of removing a delay is the exact advantage that the present application describes for the rotation limiting comparator **24**. The sentence bridging pages 14 and 15 of Applicant's Specification states, "Thus, the output of the rotation limiting comparator 24 is used to remove the extra ON period of the PWM signal created by the delay caused by the capacitor 22 for oscillation prevention in the motor-driver control circuit 20 at the time of abnormality (when an overload is applied to the motor 2), as described below."

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Instead of basing the conclusion of obviousness on actual teachings or suggestions of the prior art and the knowledge of one of ordinary skill in the art at the time the invention was made, the Examiner has improperly used Applicants' own invention as a guide. It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious. The Federal Circuit has previously stated that one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fritch*, 972 F.2d 1260, 23 USPQ 2d 1780, 1784 (Fed. Cir. 1992).

Second, in the paragraph bridging pages 3-5 of the outstanding Office Action, the Examiner alleged, "It would have been obvious to one of ordinary skill in the art at the time of the invention to add a rotation limiting comparator as taught by [Fuse] within the teaching of applicant's admitted prior art of figure 4 ... ." Contrary the Examiner's allegations, one of ordinary skill in the art would not have modified the device of AAPA to include reference number **21** of Fuse. Reference number **21** of Fuse more closely corresponds, although not exactly, to the rotational control amplifier **113** shown in **Fig. 4** of AAPA than the feature of "a rotation control amplifier" as recited in Claim 4 (see, for example, reference number **24** in Applicant's **Fig. 1**) because both reference number **21** of Fuse and rotational control amplifier **113** of AAPA are three input comparators. That is, reference number **21** of Fuse and the rotational control amplifier **113** of AAPA provide similar functions. Thus, one of ordinary skill in the art would not have added reference number **21** of Fuse to the device of AAPA because similar functions are already provided by the rotational control amplifier **113** of AAPA.

Thus, the combination of AAPA and Fuse fails to teach or suggest the feature of "a rotation limiting comparator arranged to input and compare a voltage that is substantially equal to said voltage limiting reference voltage with said peak voltage" as recited in Applicant's Claim 4.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claim 4 under 35 U.S.C. §103(a) as being unpatentable and obvious over AAPA in view of Fuse.

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Accordingly, Applicant respectfully submits that the prior art of record, applied alone or in combination, fails to teach or suggest the unique combination and arrangement of elements recited in Claim 4 of the present application. Claims 5-7 depend upon Claim 4 and are therefore allowable for at least the reasons that Claim 4 is allowable.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

To the extent necessary, Applicant petitions the Commissioner for a TWO-month extension of time, extending to November 17, 2008, the period for response to the Office Action dated June 17, 2008.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Dated: November 17, 2008

/Peter Medley #56,125/  
Attorneys for Applicant

**KEATING & BENNETT, LLP**  
1800 Alexander Bell Drive, Suite 200  
Reston, VA 20191  
Telephone: (571) 313-7440  
Facsimile: (571) 313-7421

Joseph R. Keating  
Registration No. 37,368  
Peter Medley  
Registration No. 56,125